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09/873,605	06/04/2001	George E. Friedman	EMPIR-002AUS	3779

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DALY, CROWLEY & MOFFORD, LLP  
SUITE 101  
275 TURNPIKE STREET  
CANTON, MA 02021-2310

EXAMINER
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PUENTE, EMERSON C

ART UNIT	PAPER NUMBER
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2113

DATE MAILED: 04/22/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/873,605

Applicant(s)

FRIEDMAN ET AL. 

Examiner

Emerson C Puente

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– The MAILING DATE of this communication appears on the cover sheet with the correspondence address –

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 04 June 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☐ Claim(s) \_\_\_\_\_ is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5, 7-19, 21-32, 34 and 35 is/are rejected.
- 7) ☒ Claim(s) 6, 20 and 33 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 June 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 3.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Drawings***

This application, filed under former 37 CFR 1.60, lacks formal drawings. The informal drawings filed in this application are acceptable for examination purposes. When the application is allowed, applicant will be required to submit new formal drawings. In unusual circumstances, the formal drawings from the abandoned parent application may be transferred by the grant of a petition under 37 CFR 1.182.

### ***Specification***

The use of the trademark Enterprise JavaBeans (EJB) and JAVA have been noted in this application. It should be capitalized wherever it appears and be accompanied by the generic terminology.

Although the use of trademarks is permissible in patent applications, the proprietary nature of the marks should be respected and every effort made to prevent their use in any manner which might adversely affect their validity as trademarks.

### ***Claim Objections***

Claim 4-6, 16, 19-21, 28, 34 are objected to because of the following informalities:

Please replace "EJB" with "Enterprise JavaBeans".

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 101***

35 U.S.C. 101 reads as follows:

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Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 23-35 are rejected under 35 U.S.C. 101 because claimed invention is directed to non-statutory subject matter. Since a computer program is merely a set of instructions capable of being executed by a computer, the computer program itself is not a process. A computer program, without the computer-readable medium needed to realize the computer program's functionality, is nonstatutory functional descriptive material. See MPEP § 2106.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1,3,4,7-18, and 23-31 are rejected under 35 U.S.C. **103(a)** as being unpatentable over US Patent No. 6,587,969 of Weinberg et al. referred hereinafter "Weinberg" in view of US Patent No. 5,809,238 of Greenblatt et al. referred hereinafter "Greenblatt".

In regards to claim 1, Weinberg discloses:

an aggregator for interfacing with an application under test that forms a part of an enterprise application system (see figure 6c item 602);

a signal generator/database coupled to the aggregator for storing and retrieving data (see column 2 lines 25-40); and

recording component data during a teach mode in the signal generator/database (see column 2 lines 25-32) and injecting the data stored in the signal generator/database into the enterprise system during a playback mode to test the components (see column 2 lines 35-40).

Furthermore, Weingberg discloses a recorder module between the aggregator and respective component of the application under test (see figure 6A item 604).

However, Weinberg fails to disclose:

a plurality of probes each of which can be inserted between the aggregator and a respective component of the application under test.

Greenbalt discloses using a plurality of probes for data collection (see column 2 lines 58-60).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have a plurality of probes each of which can be inserted between the aggregator and a respective component of the application under test. A person of ordinary skill in the art would have been motivated because Weinberg discloses the recorder module recording of data, and probes, as per teaching of Greenbalt, enable collection or recording of data (see column 2 lines 58-60).

In regards to claim 3, Weinberg discloses:

wherein the graphical interface includes a mechanism for selecting a breakpoint for playback mode (see column 7 lines 25-30 and 40-45).

In regards to claim 4, Weinberg discloses:

wherein the plurality of probes includes probes for interfacing to components selected

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from the group consisting of databases, networks, message queues, servlets, EJBs, legacy systems, and web servers (see column 2 lines 25-30).

In regards to claim 7, Weinberg discloses:

wherein the signal generator/database can store component data selected from the group consisting of bean names, methods, arguments, method ordering, transaction number, elapsed time, and object information (see column 2 lines 25-35).

In regards to claim 8, Weinberg discloses:

wherein the aggregator includes a graphical interface having a mechanism to expand data associated with a component under test (see column 2 lines 57-62).

In regards to claim 9, Weinberg discloses:

wherein the graphical interface further includes a mechanism to create a plurality of instances of the component under test and exercise the component under test using data expanded from the data stored in the signal generator/database (see column 2 lines 57-62)..

In regards to claim 10 and 23, Weinberg discloses:

inserting a plurality of probes between an aggregator and respective components of an application under test;

recording data received during a teach mode(see column 2 lines 25-30);

storing the recorded data (see column 2 lines 25-40);

injecting the recorded data into the enterprise system during a playback mode (see column 2 lines 35-40);

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recording data received by the plurality of probes during the playback mode (see column 2 lines 35-40); and

comparing actual and expected data (see column 3 lines 1-10).

However, Weinberg fails to explicit discloses:

a plurality of probes for recording data during a teach mode;

a database for storing the recorded data;

Greenbalt discloses using a plurality of probes for data collection (see column 2 lines 58-60).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have a plurality of probes for recording data during a teach mode. A person of ordinary skill in the art would have been motivated because Weinberg discloses the recorder module recording of data, and probes, as per teaching of Greenbalt, enable collection or recording of data (see column 2 lines 58-60).

Furthermore, Greenbalt discloses the use of a data base system for storing data (see column 2 lines 5-10)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to store the recorded data in a database. A person of ordinary skill in the art at the time the invention was made would have been motivated because Weinberg discloses recording and storing of data and database, as per teaching of Greenbalt, enables the storing of recorded data (see column 2 lines 5-10).

In regards to claim 11 and 24, Weinberg discloses:

selecting a breakpoint corresponding to a point associated with a component under test

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(see column 7 lines 25-30 and 40-45).

In regards to claim 12 and 25, Weinberg discloses:

running the application under test until reaching the breakpoint and retrieving recorded data associated with the component under test (see column 7 lines 25-30 and 40-45).

In regards to claim 13 and 26, Weinberg discloses:

expanding the data associated with the component under test and creating a plurality of instances of the component under test (see column 2 lines 57-60).

In regards to claim 14 and 27, Weinberg discloses:

load testing the component under test with the expanded data (see column 2 lines 57-60).

In regards to claim 15 and 29, Weinberg discloses:

load testing the component under test without compiling test code (see column 2 lines 25-40).

In regards to claim 16 and 28, Weinberg discloses:

selecting the component under test from the group consisting of EJBs, web pages, web queues, databases, legacy systems, and message queues (see column 2 lines 25-30).

In regards to claim 17 and 30, Weinberg discloses:

testing at least one of the plurality of components in a transactional context (see column 2 lines 57-64).

In regards to claim 18 and 31, Weinberg discloses:

retrieving methods associated with the at least one of the plurality of components in an order in which the methods were called during the teach mode (see column 2 lines 25-40).



Claim 2 is rejected under 35 U.S.C. **103(a)** as being unpatentable Weinberg in view of Greenbalt and in further view of Application Admitted Prior Art referred hereinafter "AAPA".

In regards to claim 2, Weinberg discloses:

the aggregator includes a graphical interface

However, Weinberg fails to disclose:

enabling a user to selectively insert the plurality of probes at various locations in the application under test

However, Subrahmanyam discloses placing probes at selected locations to monitor progress and performance of a program or application (see abstract).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to enable a user to selectively insert the plurality of probes at various locations in the application under test. A person of ordinary skill in the art would have been motivated because Weinberg discloses recording of data (see column 2 lines 25-40) and enabling a user to selectively insert the plurality of probes at various locations, as per teaching of Subrahmanyam, enables recording of data at various locations during execution (see abstract).

Claims 5, 19, and 32 are rejected under 35 U.S.C. **103(a)** as being unpatentable Weinberg in view of Greenbalt and in further view of Application Admitted Prior Art referred hereinafter "AAPA".

In regards to claim 5, 19, and 32, Greenbalt discloses wherein at least one of the plurality of probes is an probe transparently inserted (see column 18 lines 20-27).

However, Weinberg in view of Greenbalt fails to disclose an EJB probe between an EJB client and an EJB.

AAPA discloses EJBs are written in JAVA programming language which provides "platform independence", indication the application performs the same regardless the hardware and operating system which it is operating (see page 2-3)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have EJB probes between an EJB client and EJB. A person of ordinary skill in the art would have been motivated because Weinberg discloses the use of application program interfaces (APIs) (see column 20 lines 50-55) and EJBs constitute as API which provide platform independence, thus enabling applications to perform the same regardless the hardware and operating system which it is operating (see page 2-3)

Claims 21 and 34 are rejected under 35 U.S.C. **103(a)** as being unpatentable Weinberg in view of Greenbalt and AAPA and in further view of Sun Microsoft's documentation *Reflection*, referred hereinafter "Sun".

In regards to claim 21 and 34, Weinberg in view of Greenbalt and AAPA fails to disclose:

using Java reflection to generate the EJB probe and EJB component.

However, Sun discloses Java reflection enables Java code to discover information about the fields, methods, and constructors of loaded classes and to use reflected fields, methods, and constructors to operate on the underlying counterparts on objects (see page 1).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use Java reflection to generate the EJB probe and EJB component. A person of

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ordinary skill in the art would have been motivated because Weinberg discloses running multiple iterations or instances (see column 2 line 57) and Java reflection enables the use reflected fields, methods, and constructors to operate on the underlying counterparts on objects, thus enabling running of multiple iterations or instances (see page 1).

Claims 22 and 35 are rejected under 35 U.S.C. **103(a)** as being unpatentable over Weinberg in view of Greenbalt and in further view of US Patent No. 6,311,327 of O'Brien

In regards to claim 22 and 35, Weinberg in view of Greenbalt fails to disclose:

extracting execution time associated with the plurality of probes.

However, O'Brien discloses extracting execution time associated with the plurality of probes (see column 8 lines 40-50).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to extract execution time associated with the plurality of probes. A person of ordinary skill in the art would have been motivated because Weinberg discloses testing the functionality of the transactional servers or application (see column 2 lines 15-20) and enabling extraction of execution time, as per teaching of O'Brien, provides performance analysis (see column 4 lines 30-35), which tests the functionality of the server or application.

#### ***Allowable Subject Matter***

Claims 6,20, and 33 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.


See Form PTO-892.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Emerson C Puente whose telephone number is (703) 305-8012. The examiner can normally be reached on 8-5 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert W Beausoliel can be reached on (703) 305-9713. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 306-5631.

***Emerson Puente***  
***4/15/04***

  
ROBERT BEAUSOLIEL  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2.